

## **REMARKS**

This Response is submitted under Rule 116 in order to place this application in condition for allowance. Applicants respectfully request that the Examiner enter the above Amendments.

As a preliminary matter, Applicants' undersigned attorneys, Richard Moss and Leslie Nguyen, would like to thank Examiner Le and Supervisory Examiner Patel for the courtesies extended during the respective telephone interviews both conducted on October 18, 2007 regarding the final Office Action mailed August 20, 2007. Interview Summaries are set forth below followed by a detailed response to the rejections presented in the final Office Action.

### **I. Summary of Interview With Examiner Le**

During the telephone interview conducted on October 18, 2007, Applicants' attorneys and Examiner Le first reviewed, in broad strokes, Applicants' invention as set forth in detail in the present application. The focus of the interview then turned to the final rejection of independent claims 1, 16 and 17 under 35 U.S.C. §103(a) as allegedly obvious over U.S. Patent No. 4,959,027 ("Muzslay") in view of U.S. Patent No. 5,605,475 ("Ogawa").

During the interview, Applicants' attorneys presented cogent arguments (further to and along lines previously presented in responses to previous Office Actions) that none of the references cited by the Examiner disclose or yield Applicants' invention as claimed in independent claims 1, 16 and 17. The Examiner appeared to appreciate the functional and structural differences between Applicants' invention and the constructions described in the cited references. Indeed, the Examiner affirmatively confirmed as correct Applicants' interpretation of the Examiner's comments in reply to the Response to the previous Office Action (set forth on page 5, ¶9, of the present final Office Action) as suggesting that amending independent claims 1,

16 and 17 to recite that the connector shell is “removably” affixed to the insulator or the housing (i.e., to clarify that the connector shell can be readily exchanged for others of a set of interchangeable connector shells having different terminal socket configurations to accommodate engagement with a variety of mating connectors of different mating configurations) would distinguish over the cited references. The Examiner, however, would not commit to entering such clarifying amendments without the submission of yet another RCE, and further suggested that such amendments might necessitate further searching and examination.

Applicants’ undersigned attorneys respectfully pointed out that, with such clarifying amendments (suggested by the Examiner herself in the present final Office Action), and in view of the acknowledged functional and structural differences between Applicants’ invention and the constructions described in the cited references, further searching/examination was neither necessary nor appropriate, and the application would be in condition for immediate allowance.

Applicants’ attorneys stressed that the amendments under discussion would only clarify a structural arrangement already reflected in the application claims and fully examined by the Examiner (in eight Office Actions spanning the nearly 4 years that this case has been pending before the PTO). The Examiner recommended either filing the RCE or appealing the case.

## **II. Summary of Interview With Supervisory Examiner Patel**

Promptly after concluding the telephone interview with Examiner Le, Applicants’ attorneys placed a telephone call on October 18, 2007 to Supervisory Examiner Patel (who had intervened and provided invaluable assistance in this case in the past) to seek his guidance on how to proceed in view of the telephone interview with Examiner Le. Applicants’ attorneys and Supervisory Examiner Patel first reviewed, in general terms, Applicants’ invention as set forth in detail in the present application, and then discussed the issues presented by the telephone

interview with Examiner Le. After breaking to permit Supervisory Examiner Patel to review the case and consult with Examiner Le, the telephone call was resumed later the same day.

The Supervisory Examiner recognized that the searches and examination conducted by the Examiner, to date, were comprehensive and now complete, and that clarifying amendments to the independent application claims, including the amendment suggested by Examiner Le, should place the present application in condition for immediate allowance. The focus of the call then turned to the “wherein” clause of independent claim 1 which the Supervisory Examiner suggested might benefit from further clarifying amendment. Finally, the Supervisory Examiner recommended that Applicants file an early response to the final Office Action to obtain entry of the discussed clarifying claim amendments. This Response is being submitted to comply with the Supervisory Examiner’s recommendation.

### **III. Detailed Response**

Claims 1 and 3-16 are pending in this application; claims 2 and 17 have been canceled without prejudice. Claims 1, 3 and 12-16 stand finally rejected. Claims 4-11 are allowed. Independent claims 1 and 16 have been amended as suggested by the Examiner and at the further suggestion of the Supervisory Patent Examiner. No new matter has been introduced.

On the basis of the telephone interviews with Examiner Le and, separately, Supervisory Examiner Patel, and the foregoing claim amendments and following remarks, entry of the forgoing amendments and reconsideration and allowance of this application is earnestly solicited.

Independent claims 1 and 16 and dependent claims 3, 12-13 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Muzslay in view of Ogawa. Applicants respectfully traverse the foregoing claim rejections for the reasons set forth hereinafter.

As set forth in detail in the present application and as described in previous submissions and Examiner interviews, Applicants' invention is directed to a new pressure-tight contact device, especially of the type employed in connection with a pressure-tight encapsulated electric motor for driving a compressor used in a vehicle air suspension system, for example. The inventive contact device includes an insulator extending through and sealed relative to a pressure-tight housing. One or more contact pins (electrically connected to the motor, for example) are retained in and extend through the insulator and are sealed relative to the insulator. A connector shell is positioned on the insulator, sealed relative to the insulator, and removably affixed to the insulator or the housing to form part of the contact device. The connector shell includes a terminal receptacle or socket for engaging a separate mating connector attached to an electric connecting cable (i.e., a plug). One or more contact tabs are disposed in the connector shell in secure electrical contact with the contact pin(s) and extend into the terminal socket to engage the mating connector (plug). The connector shell is one of a set of interchangeable connector shells having different configurations for mating with different, corresponding plugs.

In essence, the connector shell provides a pressure-tight, readily interchangeable contact assembly interposed between contact pin (e.g., leading to the motor or other encapsulated device) and plug (e.g., leading to current supply lines or further signal lines) -- as explained below, such a novel construction and arrangement is not taught or suggested by any of the references cited by the Examiner, whether taken alone or in combination.

Muzslay, the principal reference cited by the Examiner, describes a fuel injector adaptor (14) for permanent mounting on a straight fuel injector (12) to accommodate a connector (16) designed for an inclined injector. The adapter includes a housing (40) with a lower housing part (42) that opens along a downward axis (44) and an upper housing part (46) that opens along

an upwardly inclined axis (50) (preferably, 45° from vertical). A pair of bent, plate-like contacts (52, 54) are mounted in the housing (40), with each contact having an upper part laying within the upper housing part (46) and extending along the inclined axis (50), and a lower contact part lying in the lower housing part (42) and extending perpendicular to the downward axis (44). The lower housing part (42) is permanently mounted on an upper end (30) of the straight fuel injector (12), with injector terminals (24, 26) projecting through holes in the contact lower parts to hold the contacts (52, 54) securely in position.

As previously submitted, Muzslay, taken alone or combined with any other reference cited by the Examiner, does not describe, yield or suggest the present invention as claimed in independent claims 1 and 16. Muzslay nowhere teaches or suggests a removable connector shell that is one of a set of interchangeable connector shells having different terminal socket configurations suitable for engaging various corresponding mating connectors having corresponding mating configurations. Rather, Muzslay describes only a single adapter configuration. *See* Fig. 3.

As suggested by the Examiner, and by the leave of the Supervisory Examiner, Applicants have amended independent claims 1 and 16, including to recite that the connector shell is “removably” affixed to the insulator or the housing as suggested by the Examiner, to clarify the claimed interchangeability of the connector shell forming part of the contact device, and hence, to clarify a patentable difference between the present claimed invention and Muzslay recognized by both the Examiner and Supervisory Examiner.

Furthermore, it is noted that Muzslay teaches that the adapter is permanently held in place once it is installed on the injector. *See* Muzslay at 1:37-40; 4:3-18. During the telephone interview with Supervisory Examiner Patel, the Supervisory Examiner appeared to

suggest that the adapter disclosed in Muzslay need not necessarily be permanently held in place (citing Muzslay at 4:3-23). Applicants respectfully submit that this cited passage does not rebut Applicants' arguments traversing Muzslay based on Muzslay's requirement that the adapter be permanently installed on the injector. This notwithstanding, in view of the foregoing clarifying claim amendments, Applicants respectfully submit that Muzslay does not teach or suggest Applicants' invention as presently claimed.

As previously explained, Ogawa, cited by the Examiner in combination with Muzslay for its disclosure of an O-ring, does not overcome the severe deficiencies of Muzslay as discussed above. Ogawa describes embodiments of an electrical connector in threaded combination with a tube member used for making an electrical connection through a wall. Ogawa nowhere describes, teaches or suggests the contact device according to the present invention as affirmatively claimed in independent claims 1 and 16 of the present application comprising the interchangeable connector shell with its plug receiving terminal socket including one or more contact tabs in electrical contact with one or more contact pins extending through the insulator.

Accordingly, independent claims 1 and 16 of the present application recite features and structure nowhere found in either of the Muzslay and Ogawa references, and, thus, these references, taken alone or in combination, cannot yield the present claimed invention. In particular, as Muzslay does not disclose, teach or suggest interchangeable connector shells, it is submitted that one of ordinary skill in the art at the time Applicants' invention was made would not be motivated, let alone equipped, to arrive at the present invention as claimed in independent claims 1 and 16 looking to Muzslay, either alone or in combination with any other reference cited by the Examiner, including Ogawa.

It is further submitted that dependent claims 3, 12-13 and 15 are also allowable by reason of their various dependencies from independent claim 1, as well as for the additional features and structure recited therein. Notice to this effect is earnestly requested.

Dependent claim 14 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Muzslay in view of Ogawa, and further in view of U.S. Patent No. 6,558,178 (“Nakamura”). Applicants specifically traverse the foregoing claim rejection for the reasons set forth hereinafter.

Applicants respectfully submit that dependent claim 14 is not only allowable by reason of its dependency from independent claim 1, and for the additional features and structure recited therein, but also because it does not remedy the severe deficiencies of Muzslay and Ogawa as discussed above. As previously submitted, Nakamura cited by the Examiner for its disclosure of a plurality of projections from at least one contact pin, describes embodiments of a waterproof connector having a small size due to the reduction of surplus space (see Fig. 9). Nakamura nowhere teaches or suggests the contact device according to the present invention comprising the interchangeable connector shell with its plug receiving terminal socket including one or more contact tabs in electrical contact with one or more contact pins extending through the insulator.

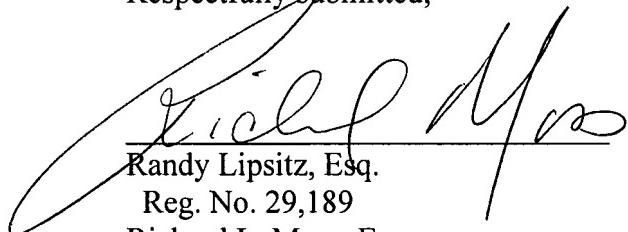
Accordingly, it is submitted that dependent claim 14 is in condition for immediate allowance. Notice to this effect is respectfully requested.

Applicants have made a diligent effort to place this application in form for allowance, and notice to this effect is earnestly solicited.

The Examiner is invited to contact Applicants’ undersigned attorneys at the telephone number set forth below if it will advance the prosecution of this case.

No fee is believed due with this Response. Please charge any fee deficiency to  
Deposit Account No. 50-0540.

Respectfully submitted,



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